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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,276

09/26/2006

Hiroki Muraoka

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53080 7590 05/27/2009  
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EXAMINER

LI, JUN

ART UNIT

PAPER NUMBER

1793

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,276	<b>Applicant(s)</b> MURAOKA ET AL.	
	<b>Examiner</b> JUN LI	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

The abstract of the disclosure is objected to because the abstract exceeds the maximum 150 words limit. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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**1. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narukawa (US5508122).**

Narukawa teaches a method for battery comprising a spiral electrode unit with leads unit with positive leads (item 12 figure 2) established at exposed regions of conducting electrode core material (item 11, Figure 2) including a positive electrode strip (item 1, Figure 2) which is conducting core material covered with active material; a negative electrode strip (item 2 Figure 2) which is conducting core material (item 21) covered with active material, and which is laminated with the positive electrode strip via a separator (item 3 Figure 2, column 2 lines 54-line 66). Narukawa also discloses the positive electrode lead (item 12 figure 2, 3) is sandwiched through separator material by positive electrode core and by separator (column 3 first 8 lines). Narukawa further teaches leads 512 (positive) and 522 (negative) (figure 4, 5) are assembled with lead surfaces adjacent through separator material to electrodes of opposite polarity (column 3 lines 38-44), which indicates a positive electrode lead connected to adjacent to a negative electrode strip via separator material.

Narukawa fails to expressly teach the first, second and third winding turn as recited in the instant application.

However, from the winding method as shown by Narukawa as discussed above (column 2 lines 54-67 and column 3 lines 1-8, 38-44, Figure 2,3, 4, 5), a positive lead (item 12/512 Figure 2/ 4) can be connected to the exposed portion of the positive electrode strip via separator (column 1 lines 38-43), a first winding turn is expected

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outwardly adjacent to a positive lead (item 512 Figure 4 ) with the separator (item 53 Figure 4) interposed there between(Figure 4), and a second winding turn is also expected outwardly adjacent to the first winding turn with the separator (item 53 Figure 4) interposed therebetween comprising a portion of the negative strip (item 52) carrying the negative electrode material, a third winding turn in the electrode assembly is outwardly adjacent to the second winding turn with the separator (item 53 Figure 4) interposed there between comprising a portion of the positive strip (item 51) carrying a positive material layer. Narukawa further teaches a better electrode spiral unit with a better internal shorting damage prevention and a simple electrode unit assembling process(column 1 lines 24-28, Table 1, 2) can be achieved by adjusting different length of the winding components (as shown in embodiment A1 and comparative example).

It would have been obvious to one ordinary skill in the art to adjust different winding component position and the winding method as taught by Narukawa to improve the spiral electrode unit property and simplify the winding process.

### ***Conclusion***

1. All the claims are rejected for the reasons of the record.
2. The additional references on the 892 have been cited as art of interest since they are cumulative to or less than the art relied upon in the rejections above.
3. The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUN LI whose telephone number is (571)270-5858. The examiner can normally be reached on Monday-Friday, 8:00am EST-5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUN LI/

Examiner, Art Unit 1793

/J. L./

05/14/2009

/Melvin Curtis Mayes/

Supervisory Patent Examiner, Art Unit 1793